

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A packet-based communication [system] network

having different speed path-rated routing devices , comprising:

at least one slow-path routing device on the network having one or more inputs [[to said slow-path router]] that receive information packets on the network and one or more outputs that transmit information packets onto the network, [[said]] an information [[packets]] packet containing a slow-path identifier [[that identifies the]] if that information packet [[as requiring]] requires slow-path routing;

said at least one slow-path routing device having a first processor [[on the router]] coupled to said inputs and said outputs, said first processor parsing address header information in at least one of the information packets including examining one or more flag values in said at least one of the information packets and processing [[the]] said at least one of the information packets according to slow-path routing techniques, and transmitting [[the]] said at least one of the information packets to one of said outputs for directing to any other slow-path routing device on the network if said at least one of the information packets possesses the slow-path [routing] identifier;

at least one fast-path routing device on the network having one or more inputs [[to the fast-path router]] to receive information packets on the network, said at least one fast path [[router]] routing device processing information packets not having the slow-path routing identifier and [[said

fast-path routing devices will not parse]] neither parsing header information [[or analyze]] nor analyzing said at least one of the information packets according to slow-path routing requirements, said slow-path identifier including flag value that indicates if the corresponding information packet should be forwarded to a slow-path routing device on the network.

2. (Currently Amended) The packet-based communication [[routing device]] network of Claim 1 wherein the slow-path [[router]] identifier includes a flag value that contains a data element identifying a filtered router alert option.

3. (Currently Amended) The packet-based communication [routing device] network of Claim 1 wherein the slow-path [[router]] identifier includes a flag value that identifies the type of data from [[the]] an information packet to be processed by the slow-path routing devices on the network.

4. (Withdrawn) The packet-based communication routing device of Claim 1 wherein the slow-path router identifier includes a flag value that identifies a condition on the routing device that will indicate if the information packet should be forwarded to the slow-path routing devices on the network.

5. (Currently Amended) The packet-based communication [[routing device]]
network of Claim 2 wherein the flag value identifies [[the]] a slow-path
routing device as an edge router.

6. (Currently Amended) The packet-based communication [[routing device]]
network of Claim 2 wherein the flag value identifies [[the]] a slow-path
routing device as a gateway.

7. (Currently Amended) The packet-based communication [[routing device]]
network of Claim 2 wherein the flag value identifies [[the]] a slow-path
routing device as an interface.

8. (Currently Amended) A method for routing an information packet on a packet-based communication [[system]] network comprising the steps of:
- receiving an information packet on an input of a slow-path router, said slow-path router having a first processor performing slow-path processing;
 - checking a slow-path identifier value in the information packet at the first processor to determine if the information packet requires slow-path processing on the first processor;
 - analyzing the packet according to the slow-path routing requirements if the slow-path identifier value is a predetermined value;
 - forwarding the information packet to an output on the slow-path router for transmission to any other slow-path routers on the network if the information packet has said slow-path identifier;
 - receiving an information packet on an input of a fast-path router, said fast-path router having a second processor performing fast-path processing;
 - checking a slow-path identifier value in the information packet at the second processor to determine if the information packet requires slow-path processing on the network;
 - forwarding the information packet to an output on the fast-path router for transmission to any other slow-path routers on the network if the information packet has said slow-path identifier.

9. (Currently Amended) The method for routing an information packet on a packet-based communication [[system]] network of Claim 8 wherein the slow-path identifier value contains a data element identifying a filtered router alert option.
10. (Currently Amended) The method for routing an information packet on a packet-based communication [[system]] network of Claim 8 wherein the slow-path identifier value indicates the portions of [[the]] an information packet that require processing at the second processor.
11. (Original) The method for routing an information packet on a packet-based communication [[system]] network of Claim 8 further comprising the step of:
- processing [[the]] an information packet on an edge router.
12. (Original) The method for routing an information packet on a packet-based communication [[system]] network of Claim 8 further comprising the steps of:
- processing [[the]] an information packet on a gateway.
13. (Original) The method for routing an information packet on a packet-based communication system of Claim 8 further comprising the step of:
- processing the information packet on an interface.

14. (Original) The method for routing an information packet on a packet-based communication [[system]] network of Claim 8 further comprising the step of:

processing [[the]] an information packet for use by an application.

15. (Currently Amended) A method for routing an information packet on a packet-based communication [[system]] network comprising the steps of:

receiving an information packet on an input of a slow-path router;

checking a slow-path identifier value in the information packet at a first processor in a slow-path router to determine if the information packet requires higher-level processing;

forwarding the information packet to an output on the slow-path router for transmission onto any other slow-path routers on the network if the slow-path identifier value indicates the need for higher-level processing by said slow-path routers; and

retrieving specific control function data from the information packet during the higher-level processing.

16. (Currently Amended) The method for routing an information packet on a packet-based communication [[system]] network of Claim 15 wherein a slow-path identifier includes a type data field and a flag value data field.

17. (Original) The method for routing an information packet on a packet-based communication [[system]] network of Claim 15 comprising the step of:

forwarding the retrieved data for use on an interface.

18. (Original) The method for routing an information packet on a packet-based communication [[system]] network of Claim 15 further comprising the step of:

forwarding the retrieved data for use in an application.

19. (Original) The method for routing an information packet on a packet-based communication [[system]] network of Claim 15 further comprising the step of:

forwarding the retrieved data for use on a gateway.

20. (Original) The method for routing an information packet on a packet-based communication [[system]] network of Claim 15 further comprising the step of:

transmitting the retrieved data onto the network.